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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
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| 10/027,717  | 12/20/2001  | Scott R. Boerke      | 01-440                 | 9749             |
| 719   | 7590        | 03/02/2006           | EXAMINER               |                  |
| CATERPILLAR INC.<br>100 N.E. ADAMS STREET<br>PATENT DEPT.<br>PEORIA, IL 616296490 |             |                      | KRISCIUNAS, LINDA MARY |                  |
|   |             |                      | ART UNIT               | PAPER NUMBER     |
|   |             |                      | 3623                   |                  |

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/027,717

Applicant(s)

BOERKE ET AL.

Examiner

Linda Krisciunas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date December 20, 2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This following is a First Non-Final Office Action in response to Application 10027717. Claims 1-50 are pending. Acknowledgment is made of the amended claims 48 and 50 dated May 14, 2004.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-18, 27-41 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by "Special Edition Using Microsoft Project 2000" by Tim Pyron.

As per claim 1, Pyron teaches tracking progress, by at least one worker, on a task over a period of time, the task including subtasks (Ch 16, page 2, see Figure 16.13 where tasks and subtasks are listed and the progress is posted in percentage and by shading of the bar for each task and subtask over a period of months.), comprising: dividing the period of time into a plurality of timeslots (Ch 16, page 2, Figure 16.13 where time is measured in the top x axis location ranging from December 2000 to March 2001 and is further broken into week segments); determining a target number of subtasks to be completed during each timeslot (Ch 12, page 7, See Figure 12.4 where the subtasks are broken out and an end date is listed for each according to the bar

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graph); tracking an actual number of subtasks completed by the at least one worker in each time slot (Ch 16, page 2, Figure 16.13 where each subtask has a % complete and shaded bar to track the progress of the task) recording a variance between the actual number of subtasks completed and the target number associated with each time slot; recording an accumulated variance associated with each time slot (Ch 16, page 13, See Figure 16.19 where variances are listed for each subtask and for each summary task.); and recording a total variance for the predetermined period of time (Ch 16, page 19, see Figure 16.25 where all selected tasks are automatically updated as of an update date and the completion bars are updated to display the variance remaining with the task.).

As per claims 2 and 27, teaches the period of time is predetermined (Ch 16, page 18: The update as scheduled toolbar updates the project according to the date selected or the current date.).

As per claims 3 and 28, teaches the period of time varies (Ch 16, page 18: updating the schedule can be done according to a selected date, which is variable depending upon the user.).

As per claims 4, 29 and 49, teaches the step of recording the total variance for the period of time is performed without reference to the workers (Ch 16, page 19, see Figure 16.25 where all selected tasks are automatically updated as of an update date and the completion bars are updated to display the variance remaining with the task.)

As per claims 5 and 30, teaches that it is known to monitor the variance between the actual number of subtasks completed and the target number in each time slot and the accumulated variance are temporarily recorded for the period of time (Ch 16, page

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13, See Figure 16.19 where variances are listed for each subtask and for each summary task. This data is recorded when the item is "saved" and will be overwritten upon the next "save", therein making it a temporary record.).

As per claims 6 and 31, teaches that it is known that total variance is recorded in a log (Ch 16, page 19, see Figure 16.25 where all selected tasks are automatically updated as of an update date and the completion bars are updated to display the variance remaining with the task. This information is stored in an electronic file, which is equivalent to a log as it performs an identical function in substantially the same manner with substantially the same results.).

As per claim 7, teaches that it is known that a total variance for a plurality of periods of time are recorded (Ch 16, page 19, see Figure 16.25 where all selected tasks are automatically updated as of an update date and the completion bars are updated to display the variance remaining with the task. As noted, these variances are measured over the life of the project, which is weeks and months long.).

As per claim 8, teaches that it is known that the target number of subtasks to be completed during each time slot is modified as a function of the recorded total variances (Ch 16, page 2, see Figure 16.13 where the sub-tasks are rolled into the summary task and therefore the completion percentage for the summary task is a compilation of the subtasks that are completed. Therefore only those summary tasks that are not at 100% will have targeted subtasks for completion.).

As per claims 9 and 32, teaches timeslots written on a writeable medium. (Ch 16, page 2, Figure 16.13 where time is measured in the top x axis location ranging from

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December 2000 to March 2001 and is further broken into week segments. The information is stored in an electronic file, this is equivalent to a writeable medium as it performs an identical function in substantially the same manner with substantially the same results.).

As per claims 10 and 33, teaches that it is known the writeable medium includes locations for entry of the actual number of subtasks completed by each worker, the variance between the actual number and the target number, and the accumulated variance in each time slot (Ch 16, page 13, See Figure 16.19 where variances are listed for each subtask and for each summary task. As noted on page 4, the information can be filtered per resource, as seen in Figure 16.18 on page 12.).

As per claims 11 and 34, teaches the medium is erasable. (As previously noted, the information is stored in an electronic file which inherently can be modified and or deleted which is equivalent to erasable.)

As per claims 12 and 35, teaches that it is known the step of tracking an actual number of subtasks completed by each worker in each time slot is performed by the worker (Ch 16, page 7: Recording Actual Work and Costs: "you must manually enter the work and cost values when the task is complete").).

As per claims 13-18 and 36-41 teaches various writeable mediums (chalk board, white board, paper). (As previously noted, the information is stored in an electronic file, which is equivalent to the writeable mediums listed as it performs an identical function in substantially the same manner with substantially the same results.).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19-26, 42-48 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pyron in view of Sinex (US 6,571,158).

As per claim 19, Pyron teaches that it is known to provide a variance card to the at least one employee (Ch 16, page 12, see Figure 16.18 where each worker is listed and the tasks associated with the worker as well as the variances in work performed per week for each task. This is equivalent to a variance card as it performs an identical function in substantially the same manner with substantially the same results.). Pyron does not teach variance reasons. Sinex teaches that it is known to record on the variance card a reason for any variance between the actual number of subtasks completed and the target number; and recording the reason with the total variance (See Figure 12 and (column 12, lines 48-50) "box 316 is used to enable the assigned mechanic to record notes regarding repair, corrective action, turnover or rejection." Which is the reason for the time required for the task). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the variance reason feature of Sinex to provide a means for

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understanding how or why there may be a delay which would provide a more comprehensive system.

As per claims 20 and 42, Pyron does not explicitly teach variance reasons. Sinex teaches that it is known the total variance and the reason are recorded without reference to the worker (See Figure 12 and (column 12, lines 48-50) "box 316 is used to enable the assigned mechanic to record notes regarding repair, corrective action, turnover or rejection." Which is the reason for the time required for the task). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the variance reason feature of Sinex to provide a means for understanding how or why there may be a delay which would provide a more comprehensive system.

As per claims 21 and 43, Pyron does not explicitly teach predetermined reasons. Sinex teaches that it is known the variance card includes a plurality of predetermined reasons that may be checked off (See Figure 12, box 316 which lists 4 radio button options for a reason.). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the variance reason feature of Sinex to provide a means for understanding how or why there may be a delay which would provide a more comprehensive system.

As per claims 22 and 44, Pyron does not explicitly teach a comment section. Sinex teaches that it is known the variance card includes a comments section (See



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Figure 12, box 310, used to enable the mechanic to record evaluation notes or comments.). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the comments feature of Sinex to provide a means for understanding how or why there may be a delay which would provide a more comprehensive system.

As per claims 23 and 45, Pyron does not explicitly teach planning workers based on work flow. Sinex teaches that it is known the step of planning a number of workers for at least a portion of the period of time based on the number of work flow based on the target number ("GUI 280 presents the following information about the selected task: aircraft tail number 282, task number 284, bar code 286 corresponding to task number 284, work order number 288, zone number 290, sequence number 292, estimated hours 294, actual hours accrued 296, suggested number of crew members 298, skill required 300, crew numbers 302 of crews assigned to task, current date 304, station number 306, and discrepancy or task description 308."). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the workflow planning feature of Sinex to provide a more efficient means for assigning resources.

As per claims 24 and 46, Pyron does not explicitly teach reallocating workers. Sinex teaches that it is known to include the step of reallocating a worker based on the planned number of workers ("Flow chart 232 can be color-coded to provided a visual

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cue as to which tasks will fall behind schedule if the current maintenance plan is followed. For instance, completed tasks, tasks presently being worked on, tasks having a scheduled start time that has already elapsed, and future tasks could each be displayed in different colors to allow the airline operator to reallocate resources to get back on track. Flow chart 232 also allows the airline operator to reorder tasks, assign crews, assign dependencies to tasks, and make other decisions in order to avoid missing the check completion date.”). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the reallocation feature of Sinex to provide a more efficient means of optimizing resources and completing tasks.

As per claims 25 and 47, Pyron does not explicitly teach task diagnostics. Sinex teaches that it is known to include the step of providing diagnostics on the completion of the task (“A maintenance tracking system for tracking maintenance required on a member of a fleet includes means for tracking accumulated usage data, means for receiving a list of routine tasks required to be performed, means for tracking task accomplishment data for each routine task, means for determining a maintenance due point for each routine task, means for identifying maintenance due tasks as those routine tasks for which a difference between the maintenance due point of the routine task and the accumulated usage data of the aircraft is less than a user-defined critical value, and means for reporting maintenance due tasks.”). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have

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been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the task diagnostics feature of Sinex to provide a means for understanding how or why there may be a delay for a particular task which would also provide a more comprehensive system.

As per claims 26, 48 and 50, Pyron teaches dividing the period of time into a plurality of timeslots (Ch 16, page 2, Figure 16.13 where each subtask has a % complete and shaded bar to track the progress of the task); determining a target number of subtasks to be completed during each timeslot (Ch 12, page 7, See Figure 12.4 where the subtasks are broken out and an end date is listed for each according to the bar graph); tracking an actual number of subtasks completed by the at least one worker associated with each time slot (Ch 16, page 2, Figure 16.13 where each subtask has a % complete and shaded bar to track the progress of the task); recording a variance between the actual number of subtasks completed and the target number associated with each time slot (Ch 16, page 13, See Figure 16.19 where variances are listed for each subtask and for each summary task); recording an accumulated variance associated each time slot (Ch 16, page 19, see Figure 16.25 where all selected tasks are automatically updated as of an update date and the completion bars are updated to display the variance remaining with the task); recording a total variance for the period of time (Ch 16, page 19, see Figure 16.25 where all selected tasks are automatically updated as of an update date and the completion bars are updated to display the variance remaining with the task). Pyron does not explicitly teach variance cards and reasons for variances. Sinex teaches that it is known to provide a variance

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card to the at least one worker (Ch 16, page 12, see Figure 16.18 where each worker is listed and the tasks associated with the worker as well as the variances in work performed per week for each task. This is equivalent to a variance card as it performs an identical function in substantially the same manner with substantially the same results.), record a reason on the variance card for a variance between the actual number of subtasks completed and the target number; recording a total variance for the period of time and the reason for the variance ("Section 218 of GUI 190 (entitled, "Check Status") illustrates, in realtime, the number of work cards ("Count"), the estimated number of hours required ("Estimated Hours"), the actual number of hours applied ("Actual Hours"), and the percentage complete ("% Complete") for various collections of tasks. In the example of GUI 190, tasks are organized by open tasks ("Open"), close tasks ("Close"), and non-estimated tasks ("Non-Estimated"), as well as totals for all tasks ("Total")."); and modifying the target number of subtasks to be completed during at least one time slot as a function of the total variance and the reason (See Figure 9 which lists completed percentages for each task, therefore as the system updates, various tasks will become completed and the total variance will change. The reason posted may impact the tasks targeted depending upon the manpower required to compensate for why something was not done on time. If something is marked "rejection", it may require more resources to fix than "repair" or vice versa.). Sinex is an analogous art as it also teaches about monitoring the performance of workers. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Pyron with the variance

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reason feature of Sinex to provide a means for understanding how or why there may be a delay which would provide a more comprehensive system.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art also teaches about performance monitoring: Brunner et al (US 6,681,197), Sinex (US 6,571,158), Pipella et al (US 5,068,787), Loveland (US 6,810,383), Miller (US 6,101,481), Ibarra (US 6,119,097), Mitchell et al (US 6,944,622) and Diamant et al (US 5,530,861).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Krisciunas whose telephone number is 571-272-6931. The examiner can normally be reached on Monday through Friday, 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LMK

*LMK*  
*February 15, 2006*

  
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